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GenCore version 4.5
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OM protein - protein search, using sw model

October 22, 2001, 01:24:04; Search time 25.78 Seconds Run on:

(without alignments)
4854.724 Million cell updates/sec

US-09-515-806-2 Perfect score:

1 MAGGRGAPGRGRDEPPESYP.......YNIKVEKKVSVLFLYSYRDD 1643 Sequence:

OLIGO Scoring table: 219241 seqs, 76174552 residues Searched:

Gapop 60.0 , Gapext 60.0

Word size :

219241 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Listing first 45 summaries

Database :

PIR\_68:\*
1: pir1:\*
2: pir2:\*
3: pir3:\* pir4:\* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	telegest oldedown	•	protein kinase not	Atmasc.	process a	nrotein kinase (EC	kinase	kinase	kinase	kinase	hinaco.			threonin	Drotein kinase /FC	Vinse Vinse		rings Lines	rical pr	Ç	Linaco Linaco	kinase	0000	Athase Colvinsor	he Alias	י י			protein kinase B-r	protein kinase lin
3 ID	H	T138	2 S22127				I TVMSBF	I TVFVMM	TVMSRF	TVFVMR	\$ \$29851	S44841	TVRTRR	S34130				TVHUAF	2 T29223		S00644	TVHUF6	TVRTRF	T43337	TVHURE	TVEEDE	TAFFUE	219000	211	833261
Query Match Length DB	938		576				328	380	437	450	462	547	602	603	603 2		•	606			647 1	648 1	648 1	648 2	765 1	781	1 .	900	708	813
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Result No.	7	8	m	4	S	9	7	ω .	σ,	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	9 0	9 0	r 4

gag-Rmil-env polyp hvpothetical prote	nucleophosmin - ch	probable protein k	hypothetical profe	protein-tvrosine k	hynotherical prote	translation initia	interferon-inducib	nrobable kevin (EC	hypothetical prote	translation initia	translation initia	serine/threonine-s	autoantiden NOR-00	ribosomal transcri	
TVFVMI T27447	DNCHFM	A84831	T22168	TVFVUR	T25722	S50216	A59309	T37314	S53387	A53731	A41284	T38254	S18193	JC5113	
7	7	7	~	-	C3	-	-	7	~	~	7	7	7	7	
1079	294	303	399	402	440	513	515	570	607	620	626	683	727	727	
0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
10	6	S	6	თ	σ	σ	σ	σ	σ	δ	σ	σ	σ	6	
30 31	32	33	34	35	36	37	38	36	40	41	42	43	44	45	

## ALIGNMENTS

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probable translation initiation factor eIF-Zalpha kinase (EC 2.7.1.-) [similarity] - N:Alternate names: hypothetical protein DKFZp434P0612.1 C; Species: Homo sapiens (man) C;Date: 17-Mar-2000 #sequence_revision 17-Mar-2000 #text_change 20-Jun-2000 C;Accession: T46224; T46325 R;Duesterhoeft, A.; Lauber, J.; Mewes, H.W.; Weil, B.; Wiemann, S. submitted to the Protein Sequence Database, February 2000
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A; Reference number: 224138 A; Accession: T46924

A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-938 <AAA>

A; Cross-references: EMBL: AL157497

A:Experimental source: adult testis; clone DKFZp434F1312 F)Desternoeft, A: Lauber, J:; Mewes, H.W.; Gassenhuber, J:; Wiemann, S. submitted to the Protein Sequence Database, January 2000 A:Reference number: 223035

A; Status: preliminary

A Molecule type: mRNA A:Residues: 748-938 <AA2> A:Cross references: EMBL:AL137627

A; Experimental source: adult testis; clone DKFZp434P0612

A; Note: DKFZp434F1312.1; DKFZp434P0612.1

C;Superfamily: histidine--tRNA ligase homology; protein kinase homology C;Keywords: phosphotransferase

F;1-290/Domain: protein kinase homology (fragment) <KIN>F;340-747/Domain: histidine--tRNA ligase homology <HTL>

0; Gaps 56.7%; Score 932; DB 2; Length 938; 100.0%; Pred. No. 0; Live 0; Mismatches 0; Indels Matches 932; Conservative Local Similarity Query Match

ö

712 STSGERSASARFPATGPGSSDDEDDDEDEHGGVFSQSFLPASDSESDIIFDNEDENSKSQ 771 δ qq

772 NQDEDCNEKNGCHESEPSVTTEAVHYLYIQMEYCEKSTLRDTIDQGLYRDTVRLWRLFRE 831 Qγ

832 ILDGLAYIHEKGMIHRDLKPVNIFLDSDDHVKIGDFGLATDHLAFSADSKQDDQTGDLIK 891 οy

q

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SDPSGHLTGMVGTALYVSPEVQGSTKSAYNQKVDLFSLGIIFFEMSYHPMVTASERIFVL 951 892 δý

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Query Match
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C; Species: Drosophila melanogaster
C; Species: Drosophila melanogaster
C; Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 17-Nov-2000
C; Accession: T13826; T13060
E; Santoyo, J.; Alcalde, J.; Mendez, R.; Pulido, D.; de.Haro, C.
J. Biol. Chem. 272, 12544-12550, 1997
A; Title: Cloning and characterization of a CDNA encoding a protein synthesis initiation
A; Reference number: 217783; MUID: 97284729
A; Accession: T13826
A; Accession: T13826
A; Reference number: 21783; MUID: 972073563; PID: 92073564; PIDN: AAC47516.1
A; Residues: 1-1589 csan>
A; Residues: 1-1589 csan>
A; Cross-references: EMBL: UB0223; NID: 92073563; PID: 92073564; PIDN: AAC47516.1
B; Olsen, D.S.; Jordan, B.; Chen, D.; Wek, R.C.; Cavener, D.R.
Genetics 149, 1495-1599; 1998
A; Title: Isolation of the gene encoding the Drosophila melanogaster homolog of the Sacch A; Reference number: 213099; MUID: 98315111
A; Reference number: 213099; MUID: 98315111
A; Reference number: RNA
A; Residues: T-1806
A; Residues: T-1806
A; Residues: T-1806
A; Residues: T-1806
A; Residues: 1-687, K', 689-1426, 'H', 1428-1589 cols>
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                                                                                                                                                        1012 HEVLHHTLTNVDGKAYRTMMAQIFSQRISPAIDYTYDSDILKGNFSIRTAKMQQHVCETI 1071
                                                                                                                                                                                                                                                                                                                         1072 IRIFKRHGAVQLCTPLLLPRNRQIYEHNEAALFMDHSGMLVMLPFDLRIPFARYVARNNI 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1132 LNLKRYCIERVFRPRKLDRFHPKELLECAFDIVTSTTNSFLPTAEIIYTIYEIIQEFPAL 1191
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 NQLRDPTSPKFPEDFDDGEHAKQKSVISWLLNHDPAKRPTATELLKSELLPPPQMEESEL 300
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A;Cross-references: FlyBase:FBgn0003124
A;Cross-references: FlyBase:FBgn0003124
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase hom C;Keywords: ATP; phosphotransferase
F;23-277/Domain: protein kinase homology <KIN>
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A;Nolecule type: manA
A;Residues: 1-307 < CABA
A;Residues: 1-307 < CABA
A;Residues: 1-307 < CABA
A;Cross-references: EMBL:X81128; NID:9534976; PIDN:CAA57035.1; PID:9534977
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase I
C;Reywords: ATP
F;7-273/Domain: protein kinase homology (Amari)
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A;Cross-references: EMBL:AF056302; NID:93046550; PID:93046551; PIDN:AAC13490.1
C;Genetics:
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C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 24-Sep-1999
C;Accession: S47244
R;Daniotti, J.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C.Species: Drosophila melanogaster
C.Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 24-Sep-1999
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                                                                                      A;Gene: GCN2
A;Cross-references: FlyBase:FBgn0019990
C;Superfamily: histidine--tRNA ligase homology; protein kinase homology
C;Keywords: phosphotransferase; protein kinase
F;521-898/Domain: protein kinase homology <KIN>
F;958-1285/Domain: histidine--tRNA ligase homology <HTL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:X63361; NID:98355; PIDN:CAA44963.1; PID:98356
C;Genetics:
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100.0%; Pred. No. 0.39;
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100.0%; Pred. No. 0.072;
tive 0; Mismatches (
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R;Sunkel, C.E.
Submitted to the EMBL Data Library, November 1991
A;Reference number: S22127
A;Accession: S22127
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 0.6%; Score 10; DB Best Local Similarity 100.0%; Pred. No. 0.3 Best Local Similarity 100.0%; Mismatches 10; Conservative 0; Mismatches
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Matches 11; Conservative
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A; Molecule type: mRNA
A; Residues: 1-576 <SUN>
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protein kinase (BC 2.7.1.37) mil - avian myelocytomatosis virus MH2
N'Alternate names: kinase-related transforming protein mil (mht); mil proto-oncogene C; Species: avian myelocytomatosis virus MH2
A; Note: host Gallus gallus (chicken)
C; Date: 27-NOv-1985 #sequence_revision 27-Nov-1985 #text_change 23-Feb-1997
C; Accession: A00639; B00638; A21137
C; Accession: A00639; B00638; A21137
A; Reference number: A00639; MUD:84191511
A; Reference number: A00639; MUD:84191511
A; Residues: 1-380 <SUT>
A; Reference number: A00638; MUID:84121298
A; Reference number: A00638; MUID:84121298
A; Accession: B00638; MUID:84121298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RiMiki, T.; Fleming, T.P.; Crescenzi, M.; Molloy, C.J.; Blam, S.B.; Reynolds, S.H.; A Proc. Natl. Acad. Sci. U.S.A. 88, 5167-5171, 1991
A;Title: Development of a highly efficient expression cDNA cloning system: applicatio A;Reference number: A40951; MUID:91271351
A;Accession: A40951
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A; Residues: 1-328 <MTN5
A; Cross-references: GB:M6429
A; Note: the reported sequence is the product of recombination of TIF1 and B-raf genes
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N;Alternate names: kinase-related transforming protein B-raf; P94
C;Species: Mus musculus (house mouse)
C;Species: 31-Mar.1993 #sequence_revision 09-Aug-1996 #text_change 23-Feb-1997
    Gaps
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A;Cross references: GB:RO2084
F;Kan, W.C.; Flordellis, C.S.; Mark, G.B.; Duesberg, P.H.; Papas, T.S.
Proc. Natl. Acad. Sci. U.S.A. 81, 3000-3004, 1984
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    Indels
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    Mismatches
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    Conservative
                                                                                   862 VKIGDFGLAT 871
                                                                                                                                       157 VKIGDEGLAT 166
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Best Local Similarity
Matches 10; Conserv
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10;
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C;Function:
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    Matches
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A;Note: host Mus musculus (mouse)
A;Note: host Mus musculus (mouse)
C;Date: 27.Nov-1985 #sequence_revision 27-Nov-1985 #text_change 23-Feb-1997
C;Accession: A00638; A38020
R;Kan, N.C.; Flordellis, C.S.; Mark, G.E.; Duesberg, P.H.; Papas, T.S.
Science 223, 813-816, 1984
A;Title: A common onc gene sequence transduced by avian carcinoma virus MH2 and by murin A;Reference number: A00638; MUID:84121298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Map position: X
A; Introns: 4/2; 40/3; 106/1; 167/1; 196/2; 251/3
C; Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase homold
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: EMBL:AF026207; PIDN:AAB71265.1; GSPDB:GN00028; CESP:H42K12.1
A;Experimental source: strain Bristol N2; clone H42K12
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Science 224, 285-289, 1984
A;Title: Primary structure of v-raf: relatedness to the src family of oncogenes.
A;Reference number: A38020; MUID:84172180
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C;Date: 29-0ct-1999 #sequence_revision 29-0ct-1999 #text_change 03-Nov-2000
C;Accession: T33446
R;Maggi, L.; Harper, M.
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C;Comment: This protein is translated as a gag-raf polyprotein.
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A; Description: The sequence of C. elegans cosmid H42Kl2.
A; Reference number: 221169
A; Accession: T32446
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A;Molecule type: DNA
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100.0%; Pred. No. 0.39;
iive 0; Mismatches
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A;Residues: 1-323 <KAN>
A;Experimental source: ATCC 45010
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A; Residues: 1-323 <MAR>
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C; Genetics:

Matches

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Query Match 0.6
Best Local Similarity 100.
Matches 10; Conservative
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N:Alternate names: A-raf-1 proto-oncogene protein-serine/threonine kinase; kinase-relate
C:Species: Mus musculus (house mouse)
C:Dete: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 11-Jun-1999
C:Accession: A25382
Mol. Cell. Biol. 6, 2655-2662, 1986
A:Fille:Characterization of murine A-raf, a new oncogene related to the v-raf oncogene.
A:Reference number: A25382; MUID:87064566
A;Title: Nucleotide sequence of avian carcinoma virus MH2: two potential onc genes, one A;Reference number: A21137; MUD:84221892
A;Accession: A21137
A;Molecule type: DNA
A;Residues: 1-210, 'E',212-230, 'E',232-380 <KA2>
A;Cross-references: GB:K02082
C;Comment: This protein is translated as a gag-mht or gag-mil polyprotein.
C;Genetics:
A;Gene: mht; mil
C;Superfamily: kinase-related transforming protein; protein kinase homology
C;Superfamily: A;Ross-related transforming protein; serine/threonine-specific pr
C;Reywords: ATP; oncogene; phosphotransferase; polyprotein; serine/threonine-specific pr
F;80-346/Domain: protein kinase ATP-binding motif
F;108/Active site: Lys #status predicted
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A:Pathway: MAP kinase cascade
A:Pathway: MAP kinase expressed in urogenital tissues and, at lower levels, in other tissues C:Superfamily: protein kinase Araf; protein kinase C zinc-binding repeat homology; prot F:139-405/Domain: protein kinase Arp-binding motif F:139-405/Domain: protein kinase Arp-binding motif F:47/Binding site: phosphate (Ser) (covalent) (by protein kinase C) #status predicted F:56/Binding site: phosphate (Ser) (covalent) (by autophosphorylation) #status predicted F:167/Active site: phosphate (Ser) (covalent) (by autophosphorylation) #status predicted F:413/Binding site: phosphate (Ser) (covalent) #status predicted
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C;Genetics:
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100.0%; Pred. No. 0.53;
iive 0; Mismatches 0; Indels
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100.0%; Pred. No. 0.47;
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274 VKIGDFGLAT 283
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C;Function:
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KOGHY.1 protein - Caenorhabditis elegans
C.5pecies: Caenorhabditis
R.5pecies: Caenorhabditis
A.5pecies: Square
A.5pecies: Square
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A.5pecies: Paelorhape: DA
A.5pecies: L-547 cFAV>
A.5pecies: L-547 cFAV>
A.5pecies: Caenorhape: DA
A.5pecies: Caenorhape: Caenorhape
R; Felder, M.P.; Eychene, A.; Barnier, J.V.; Calogeraki, I.; Calothy, G.; Marx, M. J. Virol. 65, 3633-3640, 1991
A; Title: Common mechanism of retrovirus activation and transduction of c-mil and c-Rm A; Reference number: A40341; MUID:91251215
A; Reference number: A40341
A; Molecule type: DNA
A; Residues: 1-450 <FEL>
A; Residues: 1-450 <FEL>
A; Cross-references: GB: M62407; NID:9210080; PIDN:AAA42549.1; PID:9210081
C; Comment: This protein is translated as a mil-env polyprotein.
C; Genefics:
A; Gene: R-mil
C; Superfamily: kinase-related transforming protein; protein kinase homology
C; Keywords: ATP; oncogene; phosphotransferase; serine/threonine-specific protein kinase
F; 81-347/Domain: protein kinase ATP-binding motif
F; 109/Active site: Lys #status predicted
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C;Species: Glycine max (soybean)
C;Species: Glycine max (soybean)
C;Species: Glycine max (soybean)
C;Species: 13-3m-1995 **Requence_rewision 13-Jan-1995 **text_change 24-Sep-1999
C;Accession: S29851; S27760
R;Feng, X.H.; Zhao, Y.; Bottino, P.J.; Kung, S.
Blochim Biophys. Acta 1172, 200-204, 1993
A;Title: Cloning and characterization of a novel member of protein kinase family from A;Reference number: S29851; MUID: 93176812
A;Rolecule type: mRNA
A;Rolecule type: mRNA
A;Rolecule type: mRNA
A;Rolecule type: mRNA
C;Coss-references: EMBL:MG7449; NID: 9170046; PIDN:AAA34002.1; PID: 9170047
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase hom C;Superfamily: protein kinase hom c;Superfamil: protein kinase homc;Sippomain: protein kin
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100.0%; Pred. No. 0.54;
tive 0; Mismatches (
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100.0%; Pred. No. 0.56;
tive 0; Mismatches
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A)Cross-references: GB:L06144, NID:g309461; PIDN:AAA39948.1; PID:g309462
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase hom
C;Keywords: ATP; phosphotransferase
F;51-305/Domain: protein kinase homology <KIN>
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R;Clay, F.J.; McEwen, S.J.; Bertoncello, I.; Wilks, A.F.; Dunn, A.R.
Proc. Natl. Acad. Sci. U.S.A. 90, 4882-4886, 1993
A;Title: Identification and cloning of a protein kinase-encoding mouse gene, Plk, rel
A;Reference number: A47545; MUID:93281660
A;Accession: A47545
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C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; protein kinase hom
C;Keywords: ATP; phosphotransferase; serine/threonine-specific protein kinase
F;51-305/Domain: protein kinase homology <KIN>
A; Experimental source: lung tumor
R; Braeuninger, A.; Strebhardt, K.; Ruebsamen-Waigmann, H.
Oncogene 11, 1793-1800, 1995
A; Title: Identification and functional characterization of the human and murine polo-
A; Reference number: $61543; MUID:96068906
                                                                                                                                                                                                                A Molecule type: DNA
A; Residues: 1-122, T',124-136 <BRA>
A; Cross-references: placenta
A; Experimental source: placenta
A; Experimental source: placenta
A; Note: the authors translated the codon AGC for residue 107 as Met
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein kinase (EC 2.7.1.37) Plk - mouse
C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 24-Sep-1999
C;Accession: A47545
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Best Local Similarity 100.0%; Pred. No. v...
Matches 10; Conservative 0; Mismatches
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A; Residues: 1-603 <CLA>
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                                                                                                                                                                              A; Accession: S61543
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A; Title: Induction and down-regulation of PLK, a human serine/threonine kinase expressed A; Reference number: A53134; MUID:94173904
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C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 24-Sep-1999
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 24-Sep-1999
C;Accession: S34130; I38123; S61543
R;Golsteyn, R.M.; Schultz, S.J.; Bartek, J.; Ziemiecki, A.; Ried, T.; Nigg, E.A.
submitted to the EMBL Data Library, June 1993
A;Description: Cloning and characterization of a novel human protein kinase plk-1 a pote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein kinase (EC 2.7.1.37) raf - rat
N:Alternate names: kinase-related transforming protein raf; raf proto-oncogene protein-s
C;Species: Rattus norvegicus (Norway rat)
C;Date: 31.Mar-1989 #sequence_revision 31-Mar-1989 #text_change 11-Jun-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-602 < ISH>
A; Residues: 1-602 < ISH>
A; Cross-references: GB:MI5428; NID:g206546; PIDN:AAA42002.1; PID:g206547
C; Genetics:
A; Gene: raf
C; Superfamily: rat protein kinase raf; protein kinase homology
C; Reywords: ATP; autophosphorylation; phosphoprotein; phosphotransferase; serine/threoni
F; 301-567/Domain: protein kinase homology < KIN>
F; 309-317/Region: protein kinase ATP-binding motif
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R;Ishikawa, F.; Takaku, F.; Nagao, M.; Sugimura, T.
Mol. Cell. Biol. 7, 1226-1232, 1987
Mol. Cell. Biol. 7, 1226-1232, 1987
A;Title: Rat c-raf oncogene activation by a rearrangement that produces a fused protein. A;Reference number: A26126; MUID:87172791
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A;Residues: 1-140,'P',142-226,'E',228-603 <RES>
A;Cross-references: EMBL:X75932; NID:9460768; PIDN:CAA53536.1; PID:9460769
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A;Residues: 1-603 <GOL>
A;Cross-references: EMBL:X73458; NID;9312997; PIDN:CAA51837.1; PID:9312998
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0.64;
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                               C; Keywords: ATP; serine/threonine-specific protein kinase
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                                                                                                                                                            0.6%; Score 10; DB 100.0%; Pred. No. 0.6 tive 0; Mismatches
                                                              F;265-518/Domain: protein kinase homology <KIN>
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A; Accession: S34130
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